

Are we failing to protect threatened mangroves in the Sundarbans world heritage ecosystem?

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Supplementary Tables and Figures

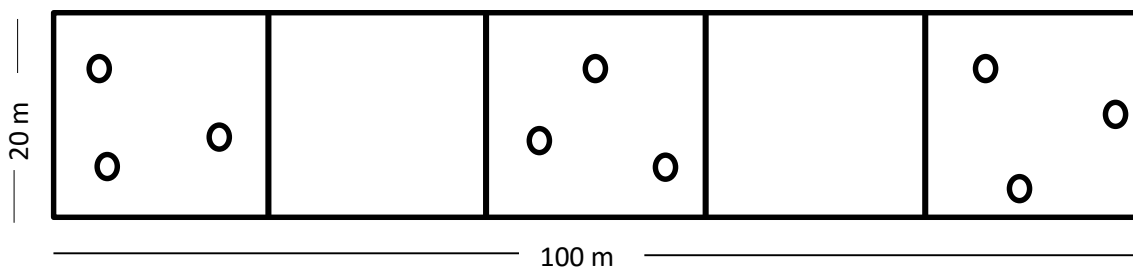
Supplementary Table S1. Stepwise VIF test outputs of the environmental covariates.

Covariates	VIF
Salinity	1.53
NH4	1.63
P	1.32
K	1.35
Mg	2.13
Fe	1.58
Zn	2.60
Elevation	1.09
URP	1.07

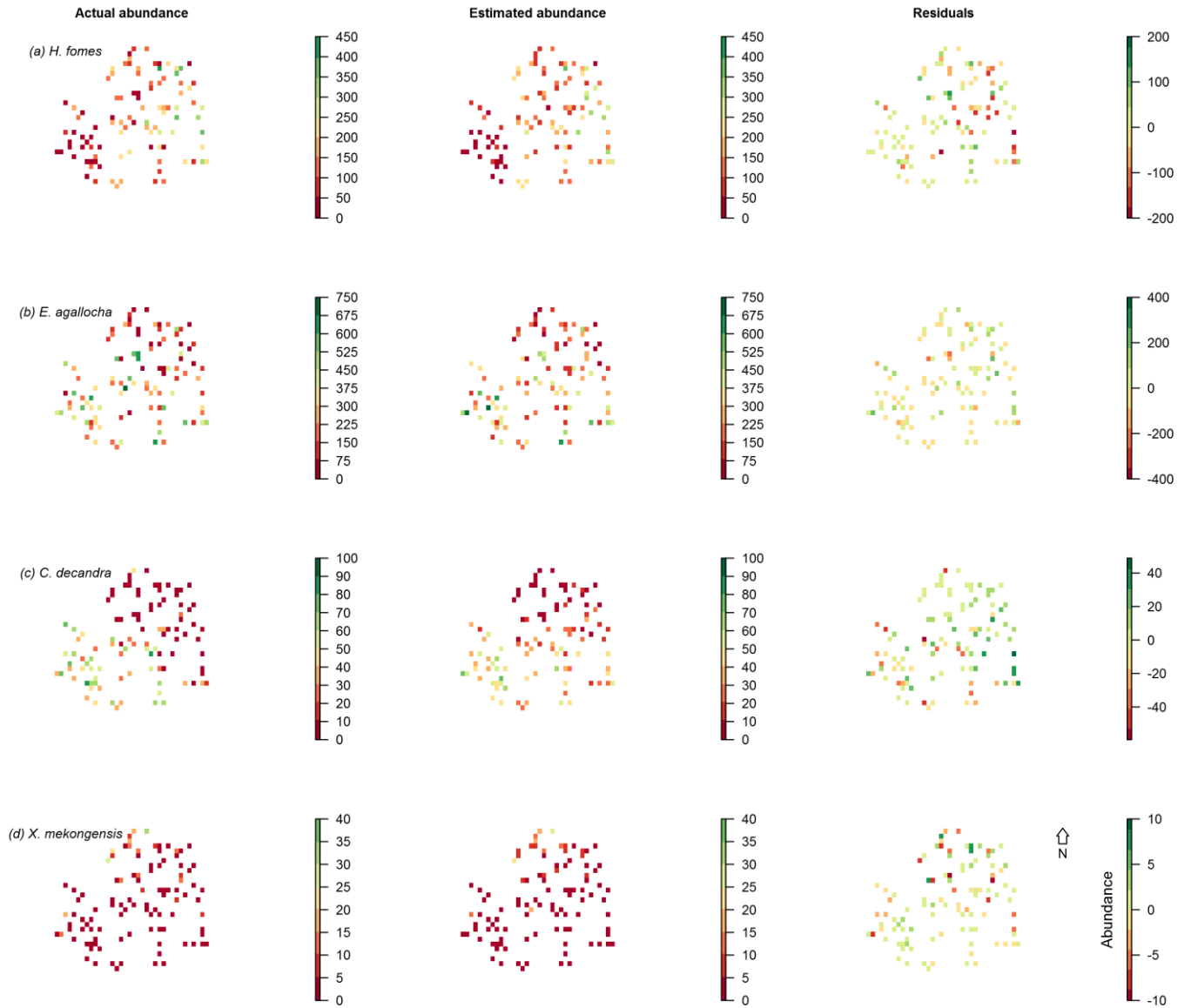
Supplementary Table S2. Comparison of predictive accuracy (through leave-one-out cross validation) between the habit-based models (GAMs) and Ordinary kriging (OK) based on normalized root mean square error (NRMSE) of the predicted species abundances versus the actual abundances. NRMSE is expressed here as a percentage, where lower values indicate less residual variance.

	GAMs	OK
	NRMSE (%)	
<i>H. fomes</i>	20	20
<i>E. agallocha</i>	14	23
<i>C. decandra</i>	26	21
<i>X. mekongensis</i>	15	16

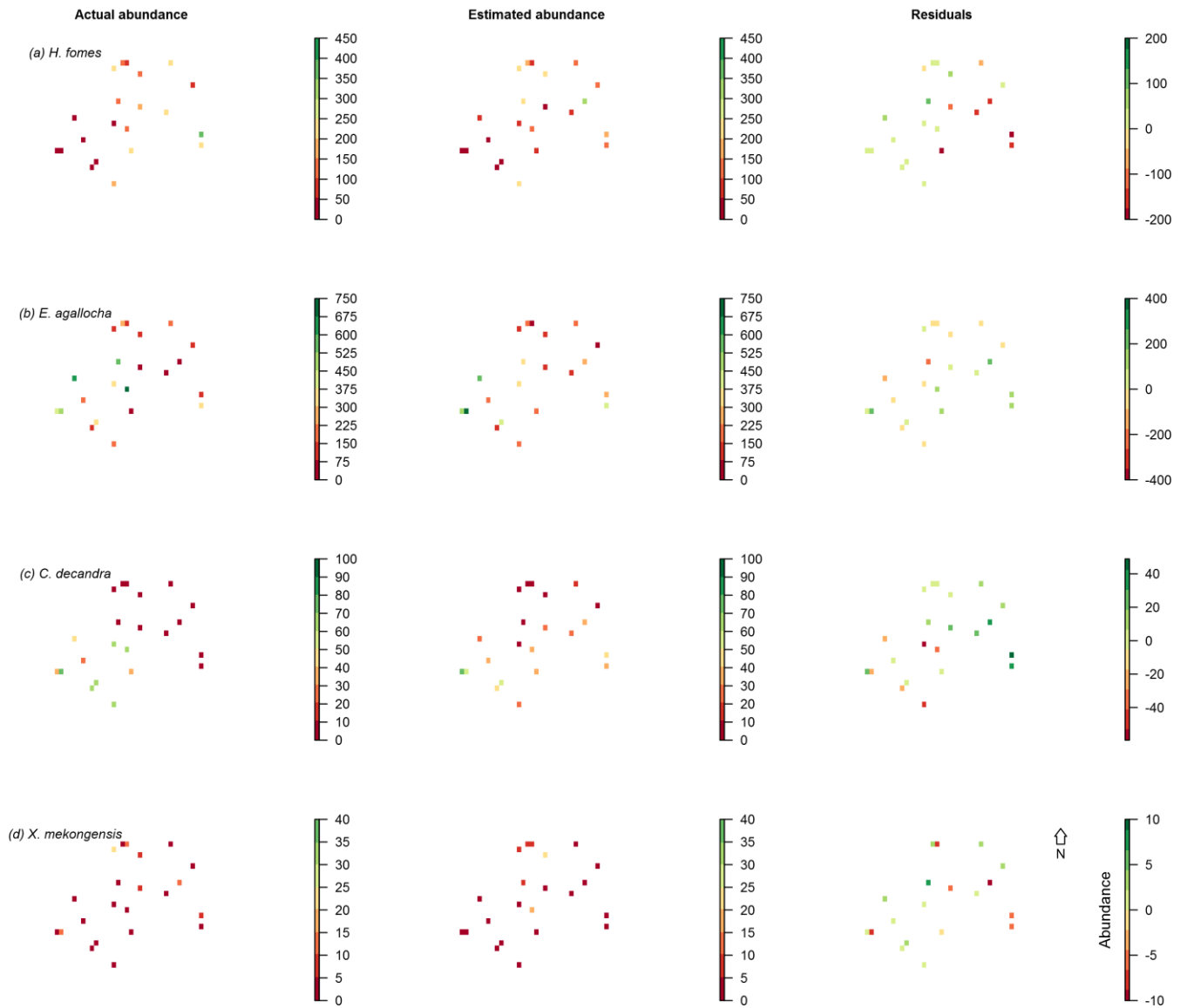
Supplementary Figure S1. Soil sampling design. Total 9 soil samples (circles, 0 – 30 cm depth) were randomly (3 samples/subplot) collected in the ends and middle of the 20 x 20 subplots in each PSP.



Supplementary Figure S2. Spatial distributions of the actual and estimated abundances of the four mangrove species, and uncertainties.



Supplementary Figure S3 Spatial distributions of the actual and estimated abundances of the four mangrove species, and uncertainties when the habitat models were applied to the validation data set.



Supplementary Figure S4. Spatial distributions of the predicted abundance differences between the GAMs and Ordinary kriging for the four mangrove species. The maps were created using ‘raster’ package (version 2.4-20) in software R (version 3.2.2, URL: <https://cran.r-project.org/web/packages/raster/index.html>).

